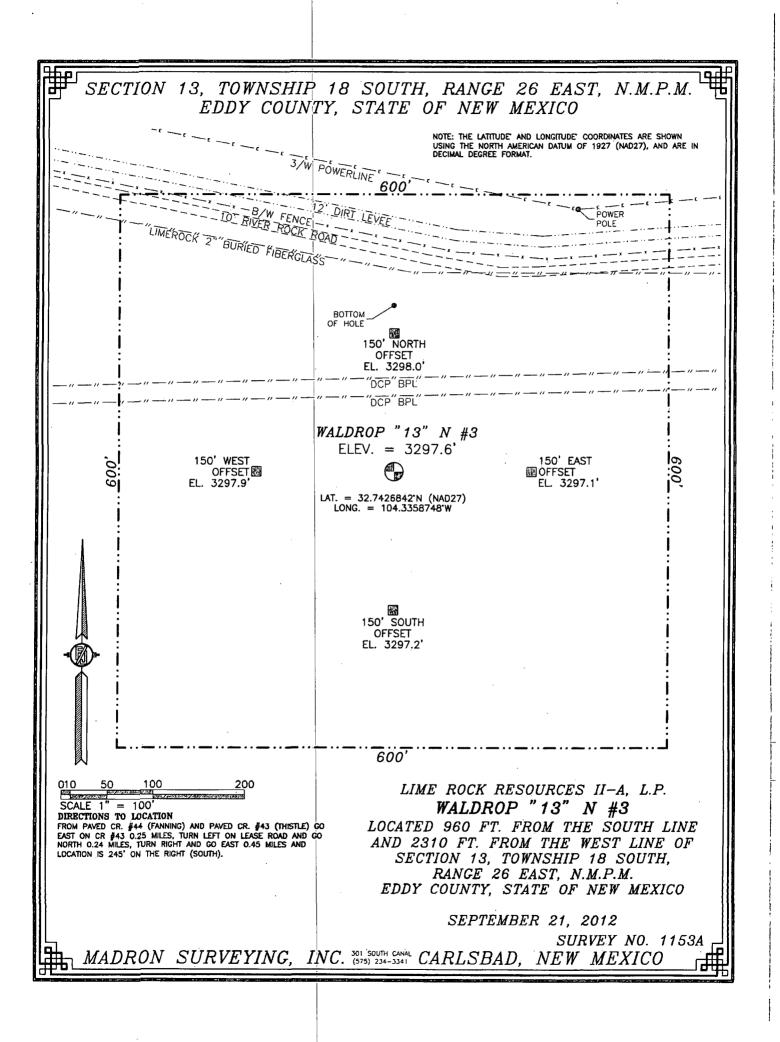
<u>District 1</u> 1625 N. French Dr Phone: (575) 393-					F		of New				Form C-101 Revised December 16, 2011
District II 811 S. First St., A Phone: (575) 748- District III	1283 Fax: (57	5) 748-9720		Oil Cons				als and Natural Resources			Permit
1000 Rio Brazos F Phone: (505) 334-								Francis Dr.	JAN 2	5 2013	
1220 S. St. Francis	District IV Santa 220 S. St. Francis Dr., Santa Fe, NM 87505 Santa hone: (505) 476-3460 Fax: (505) 476-3462 Santa					a Fe, NN	1 87505	NMOCD	ARTES	IA	
AP	PLICA	TION	FOF	PERMI perator Name a	<mark>Γ ΤΟ</mark> nd Addr	DRILL, RI	E-ENT	ER, DEEP		CK, OR	ADD A ZONE
	111	1 Bagby	Lim	e Rock Reso	ources		42		30-01	277558	°0/6
⁴ Prope	ty Code)				⁹ Property Waldrop	Name 13 N		p/P		Well No. #3
						⁷ Surfa	ce Loca	ation	//		
UL - Lot N	Section 13	Townshi 18S	ip 1	Range 26E	Lot	Idn Feet f		N/S Line S	Feet From 2310	E/W Line W	County Eddy
						⁸ Pool I				•	<u>1,</u>
Padlaka: Clariet	to Vesc									,	51120
Redlake; Gloriet	ia- 1 eso				<i>F</i>	Additional V	Vell In	formation	<u></u>		
1	k Type N			¹⁰ Well Type O		¹¹ Cable/I R				¹³ C	Fround Level Elevation 3297.6
	ultiple N	•		Proposed Depth TVD / 4512' ME	¹⁶ Format Yeso				¹⁷ Contractor ited Drilling, Inc.	¹⁸ Spud Date After 3/8/2013	
Depth to Grou	and water:			Distar	ice from	nearest fresh water	r well: 0.19	Miles	Distance to	nearest surfa	ce water: 1.48 Miles
				19	Prop	osed Casing	g and C	Cement Pro	gram	-	
Туре	Hol	e Size	Ca	asing Size	Ca	asing Weight/ft		Setting Depth	Sacks of C	ement	Estimated TOC
Conductor		26"		20"		91.5		40 .	Ready N	lix	Surface
Surface	12	-1/4"		8-5/8"		24		425		·	Surface
Production	7-	-7/8"		5-1/2"		17	_	4512	870		Surface
	-	<u> </u>									
				Casin	g/Ce	ment Progra	am: Ad	 Iditional Co	mments		
				1		sed Blowou	t Preve	ention Prog	ram		
	Туре			V	Vorking	Pressure		Test Pres	sure	1	Manufacturer
	XLT 11"				50	00		2000			National Varco
										1	
of my knowle	edge and be	elief.	_	n above is true		nplete to the best ording to		OIL C	ONSERVAT	ION DIV	ISION
	idelines 🗌], a gener		nit 🗋, or an (Approve	ed By			
Signature:	Spor	non	le,	L		:		$\frac{1}{2}$	Nallard		
Printed name	: Spencer (Cox				;	Title:	Jodos	15T		
Title: Produc	ction Engin	eer					Approve	ed Date: 1/25	12013 Ex	piration Date	1/25-pois
E-mail Addre	ess: scox@	limerock	resource	es.com				//			//

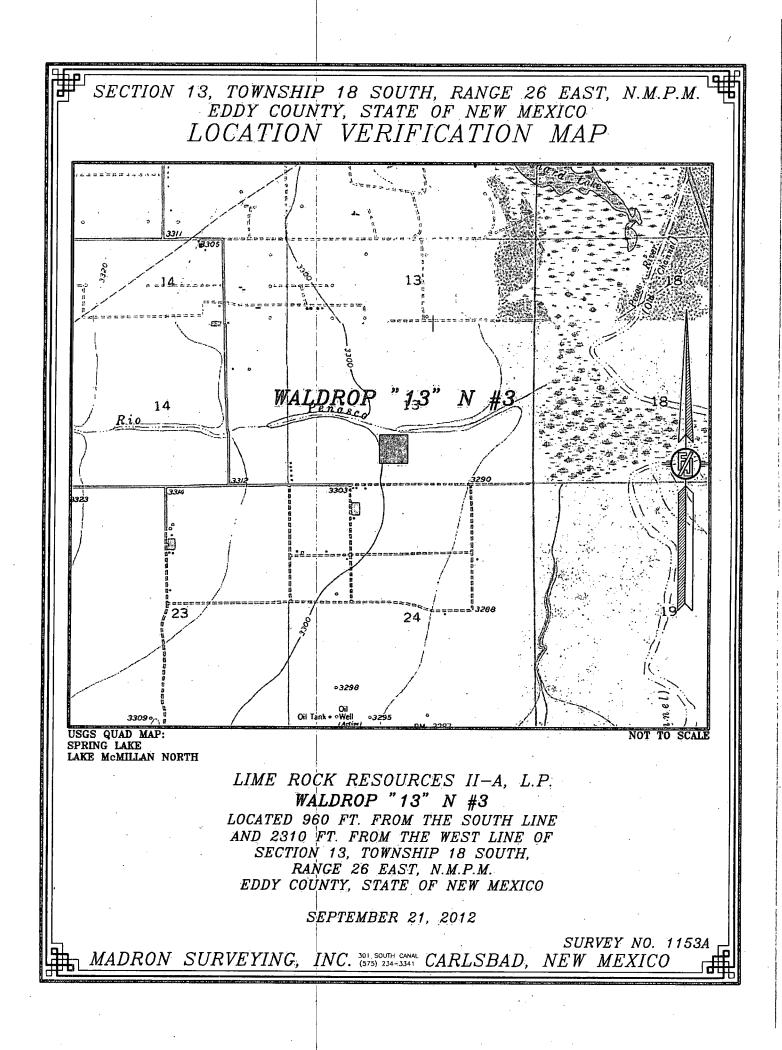
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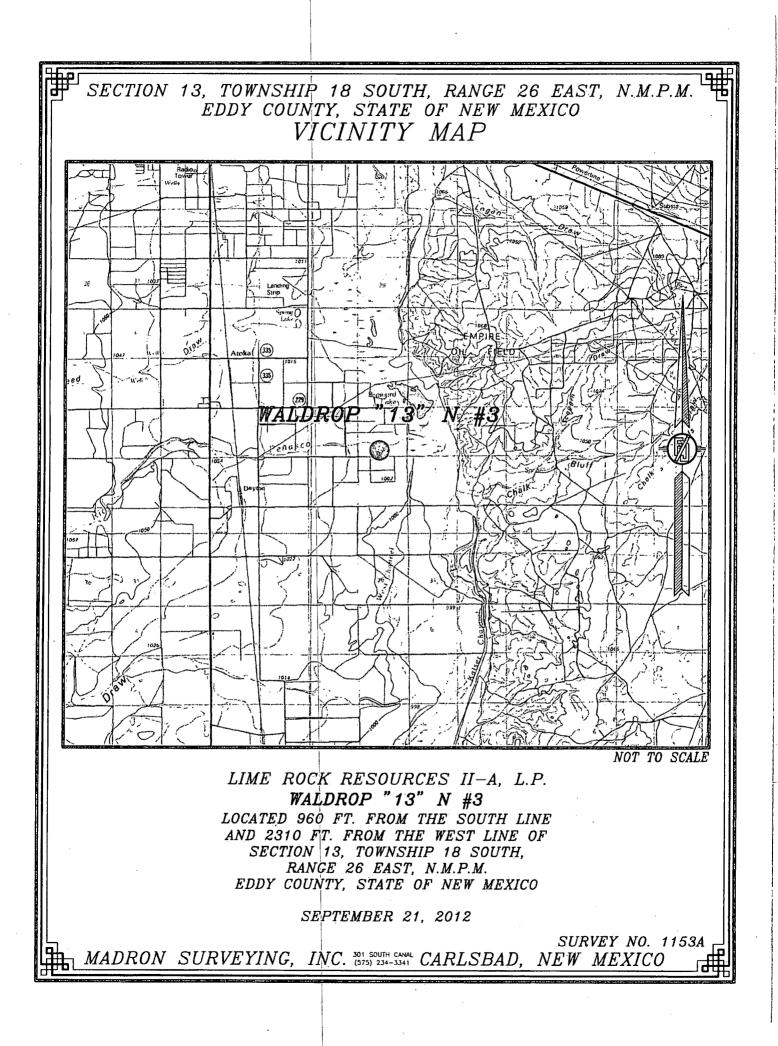
<u>District.1</u> 1625 N. French Dr., H. Phone: (575) 393-6161 <u>District.11</u> S11 S. First St., Artesit Phone: (575) 748-1283 <u>District.111</u> 1000 Rio Brazos Road Phone: (505) 334-6178 <u>District.177</u> 1220 S. St. Francis Dr. Phone: (505) 476-3460	Fax: (575) 35 a, NM \$\$210 Fax: (575) 74 Aztec, NM \$ Fax: (505) 33 Sánta Fe, NM	93-0720 8-9720 7410 4-6170 1 87505	Ener	OIL C		ral Resources E FION DIVISIO . Francis Dr.	-	Sut	mit one	Form C-102 sed August 1, 2011 copy to appropriate District Office IENDED RÉPORT
		I	WELL LO	DCATIO	N AND ACI	REAGE DEDIC	CATION PLA	AT		
30-0	API Numbe	HOI	6 5	² Pool Cod	e 	REDLAKES	· Generation	100		
Property (Code		ار		* Property	Name			6 .	Well Number
Stlah	O				WALDROI	P "13" N				3
⁷ OGRID	No.				⁸ Operator	Name				* Elevation
27755	8			LIME	ROCK RESO	URCES II A, L.I	2.			3297.6
					" Surface	Location	····			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
N	13	18 S	26 E		Ş10	SOUTH	2310	WE	ST	EDDY
······		•		Bottom H	ole Location	If Different Fro	om Surface			
UL. or lot no.	Section	Township	Range	Lot Idn	Fect from the	North/South line	Feet from the	East/We	est line	County
N	13	18 S	26 E		990	SOUTH	2310	WE	ST	EDDY
¹² Dedicated Acre	s ¹³ Joint	or Infill	⁺ Consolidatio	n Code			¹⁸ Order No.			· · ·

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	S89'27'42"W	2692.34 FT	S89	27'42."W 2692.34 FT		" OPERATOR CERTIFICATION
	NW CORNER SEC. 13	СОМРИТЕО		NE CORNER SEC. 13		I hereby certify that the information contained herein is true and complete
	LAT. = 32.7550409'N			LAT. = 32.7551800'N LONG. = 104.3259527'W		to the best of my knowledge and belief, and that this organization either
	LONG. = 104.3434626W	ļ				owns a working interest or unleased mineral interest in the land including
l s					E	the proposed bottom hole location or has a right to drill this well at this
800.					6	location pursuant to a contract with an owner of such a mineral or working
5		l l			2.5	interest, or to a voluntary pooling agreement or a compulsory pooling
4		1			268	order heretofore entered by the division.
E 2650.			AND LONGITUDE	<u></u>	N00.40'50"E	Signature 1-23-13 Date
.54 FT		AMERICAN (NAD27),	DATUM OF 1927 AND ARE IN DECREE FORMAT.		N00.4	<u>Spencet</u> Cox Printed Name
	COMPUTED			COMPUTED		SCOXP inercek researces.com E-mail Address
			— — — — — — — — — — — — — — — — — — —			
				· · · ·		SURVEYOR CERTIFICATION
	1		1			I hereby certify that the well location shown on this
.00S					Ŀ	plat was plotted from field notes of actual surveys
Õ.			1		56	made by me or under my supervision, and that the
7'41						same is true and correct to the best of my belief.
		BOTTOM OF HOLE	OF HOLE		2682.	SEPTEMBER 31,20124 A
20		T ==	32.7431788 N		μ	Date of Superv
650			104.3358778	VV	,20	Date of squrey
0. 4	2310	• • •	WALDROP "13 ELEV. = 3297	3" N #3	N00'40'50'	Jon March
רי	2310		LAT. = 32.742 LONG. = 104 .	26842'N (NAD27) 3358748'W	oz Z	Signaluccond Scalor Professional Surveyor
	SW CORNER SEC. 13	8 0		SE CORNER SEC. 13	U	Cenificate Number Ell.INONT. LARAMIN (4): PLS 12797
	LAT. = 32.7404736'N LONG. = 104.3433724'W	COMPUTED		LAT. = 32.7404376'N LONG. = 104.3261612'W		TED LAN OUR TEN NO. 1153A
	\$89*51'28"E		S89'51'28"E			**//**







Lime Rock Resources II-A Drilling Plan

Waldrop 13 N #3 810' FSL 2310' FWL N-S13-T18S-R26E Eddy County, NM

- 1. The elevation of the unprepared ground is 3297.6' feet above sea level.
- 2. The geologic name of the surface formation is Quaternary Alluvium.
- 3. A rotary rig will be utilized to drill the well to 4500' and run casing. This equipment will be rigged down and the well will be completed with a workover rig.
- 4. Proposed total depth is 4500' MD.
- 5. The KOP for directional drilling will be at 500'. See directional plan for detail. Well will be drilled to total depth of 4512' MD / 4500' TVD inside a 30' X 30' square target inside of 40 acre spacing regulatory quarter-quarter setback distances.
- 6. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Queen	391	391
Grayburg	831	830
San Andres	1101	1097
Glorieta	2604	2592
Yeso	2751	2739
Tubb	4201	4192
TD	4512	4500

7. Estimated depths at which anticipated oil, gas, or other mineral bearing formations are expected to be encountered:

,	MD	TVD
Queen	391	391
Grayburg	831	830
San Andres	1101	1097
Glorieta	2604	2592
Yeso	2751	2739
Tubb	4201	4192
TD	4512	4500

8. Proposed Casing and Cement program is as follows:

Туре	Hole Size	Casing Size	Wt	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	26"	20"	91.5	Weld ed	в	40			5	Ready Mix
					•					
Surface	12-1/4"	8-5/8"	24	ST&C	J-55	425	300	14.8	1.35	Cl C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl2
Production	7-7/8"	5-1/2"	17	LT&C	J-55	4512	200	12.8	1.903	(35:65) Poz/Cl C Cmt + 5% NaCl + 0.25 lbs/sk Cello Flake + 5 lbs/sk LCM-1 +0.2% R-3 + 6% Gel
							670	14.8	1.330	Cl H w/ 0.6% R-3, 0.125% Cello Flake, 2% Gel
	<u> </u>				1					
_										

9. Proposed Mud Program is as follows

Depth	0-425	425-4350	4350-4500
Mud Type	Fresh Water Mud	Brine	Brine, Salt Gel, & Starch
Properties	· · · · · · · · · · · · · · · · · · ·		
MW	8.5-9.8	9.8-10-6	9.9-10.7
рН	16	10-11.10	11/17/2012
WL	NC	· NC	20-35
Vis	28-40	29-37	32-40
MC	NC	NC	<2
Solids	NC	<6	<3
Pump Rate	300-356	375-430	400-456
Special		Use Poymers sticks and MF-55 Hi-Vis Sweeps as necessary	Hi Vis Sweeps, add acid and starch as req. Raise Vis to 35 for log.

10. Pressure Control Equipment: See Attached Description and diagram of Pressure Control Equipment.

11. Testing, Logging and Coring Program

Testing Program: No drill stem tests are anticipated **Electric Logging Program:** SGR-DLL-CDL-CNL Quad Combo from 4500 to surf. Csg. SGR-CNL to Surf. **Coring Program:** No full or sidewall cores are anticipated.

12. Potential Hazards:

No abnormal temperatures or pressures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 1980 psi based on 0.44 x TD. The estimated BHT is 125 degrees F.

13. Duration of Operations:

Anticipated spud date will be soon after approval and as soon as a rig will be available. Move in operations and drilling is expected to take 10 days. An additional 14 days will be needed it complete the well and to construct surface facilities.

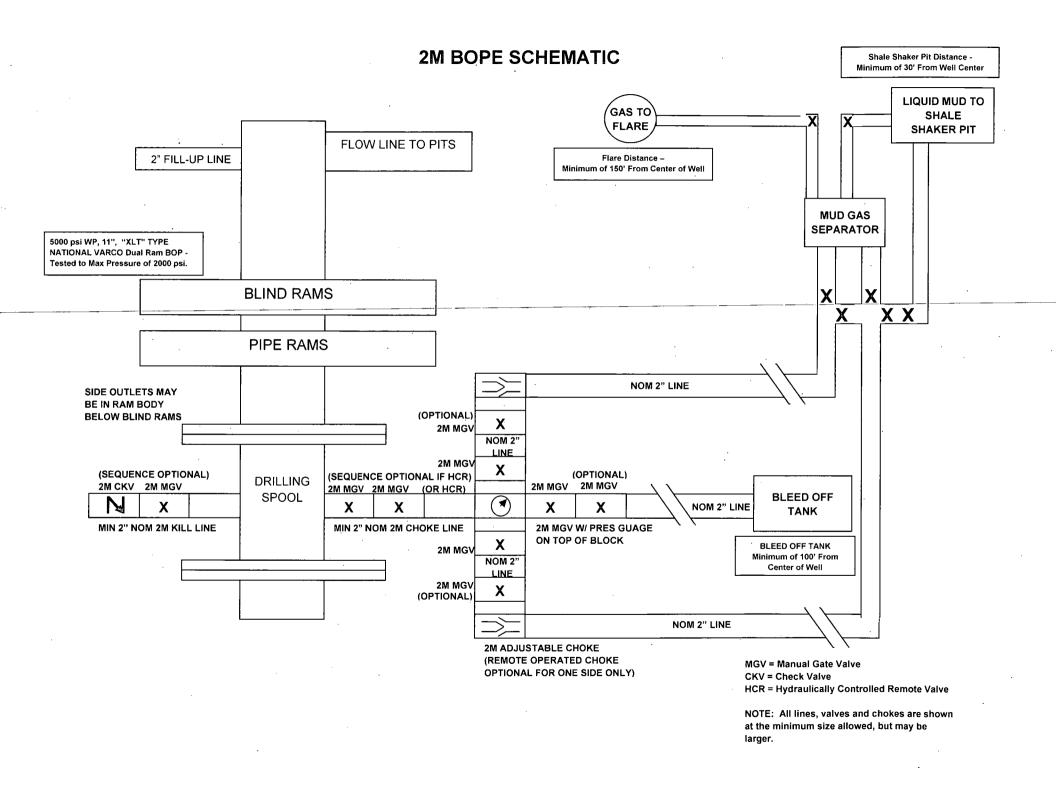
Pressure Control Equipment

The blowout preventer equipment (BOP) will consist of a 5000 psi rated, 11", "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. All casing strings will be tested as per Onshore Order #2. This also includes a thirty day (30) test, should the rig still be operating on the same well in thirty days.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

The BOP equipment will consist of the following:

- Double ram with blind rams (top) and pipe rams (bottom),
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 2" minimum diameter, kill side will be at least 2 inch diameter),
- Kill line (2 inch minimum),
- A minimum of 2 choke line valves (2 inch minimum),
- 2 inch diameter choke line,
- 2 kill valves, one of which will be a check valve (2 inch minimum),
- 2 chokes, one of which will be capable of remote operation,
- Pressure gauge on choke manifold,
- Upper Kelly cock valve with handle available,
- Safety valve and subs to fit all drill string connections in use,
- All BOPE connections subjected to well pressure will be flanged, welded, or clamped.
- A Fill-up line above the uppermost preventer.



Lime Rock Resources II-A Waldrop 13 N #3

HYDROGEN SULFIDE (H2S) CONTINGENCY DRILLING PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be rigged up and in use when the company drills out from under surface casing. H_2S monitors, warning signs, wind indicators and flags will be in use.

EMERGENCY PROCEDURES

<u>Escape</u>

Crews shall escape upwind of escaping gas in the event of an emergency release of gas, or if monitors indicate H_2S is present. Escape will take place via the entry road away from the flare stack, or a foot path marked and designated before the well is spud by on site personnel. Once crews and other personnel are a safe distance, the crews will move to evacuate any persons in the Radius of Exposure, followed by blocking access to the Radius of Exposure.

There are no homes or buildings within the Radius of Exposure ("ROE"), so efforts will be concentrated on evacuating any third parties within the ROE. Immediate response will include evacuation of any persons potentially affected by toxic or flammable gasses. Once evacuation is under way, perimeter monitoring and control of access will be executed to ensure safe areas and stage areas.

In the event of a release of gas containing H2S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H2S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (S02). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H₂S	1.189 Air= 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	S0 ₂	2.21 Air= 1	2ppm	N/A	1000 ppm

Characteristics of H2S and S02

Contacting Authorities

Lime Rock Resources personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Lime Rock Resources response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER) and BLM Onshore Order #6.

H₂S Operations

Though no H_2S is anticipated during the drilling operation, this contingency plan will provide for methods to ensure the well is kept under control in the event an H_2S reading of 100 ppm or more are encountered. Once personnel are safe and the proper protective gear is in place and on personnel, the operator and rig crew essential personnel will ensure the well is under control, suspend drilling operations and shut-in the well (unless pressure build up or other operational situations dictate suspending operations will prevent well control), increase the mud weight and circulate all gas from the hole utilizing the mud/gas separator downstream of the choke, the choke manifold and the emergency flare system located 150' from the well. Bring the mud system into compliance and the H_2S level below 10 ppm, then notify all emergency officers that drilling ahead is practical and safe.

Proceed with drilling ahead only after all provisions of Onshore Order 6, Section III.C. have been satisfied.

H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Company Offices -

Lime Rock Houston Office Answering Service (After Hours) Artesia, NM Office Roswell, NM 713 292 9510 713 292-9555 575-748-9724 575-623-8424

KEY PERSONNEL										
Name	Title	Location	Office #	Cell #	Home #					
SID ASHWORTH	PRODUCTION ENGINEER	HOUSTON	713-292-9526	713-906-7750	713-783-1959					
JERRY SMITH	ASSISTANT PRODUCTION SUPERVISOR	ARTESIA	575-748-9724	505-918-0556	575-746-2478					
MICHAEL BARRETT	PRODUCTION SUPERVISOR	ROSWELL	575-623-8424	505-353-2644	575-623-4707					
GARY FATHEREE	WELL SITE SUPERVISOR	ROTATES ON SITE	NA	940-389-6044	NA					
GARY MCCELLAND	WELL SITE SUPERVISOR	ROTATES ON SITE	NA	903-503-8997	NA					

	Α	gency Call List	
City	Agenc	y or Office	Telephone Number
Artesia		Ambulance	911
Artesia		State Police	575-746-2703
Artesia		Sheriff's Office	575-746-9888
Artesia		City Police	575-746-2703
Artesia		Fire Department	575-746-2701
Artesia	Loc	al Emergency Planning Committee	575-746-2122
Artesia		New Mexico OCD District II	575-748-1283
Carlsbad		Ambulance	911
Carlsbad		State Police	575-885-3137
Carlsbad	· · · · · · · · · · · · · · · · · · ·	Sheriff's Office	575-887-7551
Carlsbad		City Police	575-885-2111
Carlsbad		Fire Department	575-885-2111
Carlsbad	Loc	al Emergency Planning Committee	575-887-3798
Carlsbad	U	S DOI Bureau of Land Management	575-887-6544
State Wide	New Mexico Emergency	Response Commission ("NMERC")	505-476-9600
State Wide	· · ·	NMERC 24 hour Number	505-827-9126
State Wide	New Mexico S	state Emergency Operations Center	505-476-9635
National	National Emergency R	esponse Center (Washington, D.C.)	800-424-8802

H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

	Emerç	gency Services			
Name	Service	Location	Telephone Number	Alternate Number	
Boots & Coots International Well Control	Well Control	Houston / Odessa	1-800-256-9688	281-931-8884	
Cudd Pressure Control	Well Control & Pumping	Odessa	915-699-0139	915-563-3356	
Baker Huges Inc.	Pumping Service	Artesia, Hobbs and Odessa	575-746-2757	SAME	
Total Safety	Safety Equipment and Personnel	Artesia	575-746-2847	SAME	
Cutter Oilfield Services	Drilling Systems Equipment	Midland	432-488-6707	SAME	
Assurance Fire & Safety	Safety Equipment and Personnel	Artesia	575-396-9702	575-441-2224	
Flight for Life	Emergency Helicopter Evacuation	Lubbock	806-743-9911	SAME	
Aerocare	Emergency Helicopter Evacuation	Lubbock	806-747-8923	SAME	
Med Flight Air Ambulance	Emergency Helicopter Evacuation	Alburquerque	505-842-4433	SAME	
Artesia General Hospital	Emergency Medical Care	Artesia	575-748-3333	702 North 13 Street	

Lime Rock Resources II-A

Waldrop 13 N #3

UNIT N, S13-T18S-R26E, Eddy COUNTY, NM

<u>Design:</u> Closed Loop System with roll-off steel bins (pits)

CRI/HOBBS will supply (2) bins (100 bbl) volume, rails and transportation relating to the Close Loop System. Specification of the Closed Loop System is attached.

Contacts: Gary Wallace (432) 638-4076 Cell

(575) 393-1079 Office

Scomi Oil Tool: Supervisor – Armando Soto (432) 553-7979 Hobbs, NM

Monitoring 24 Hour service Equipment:

Centrifuges – Derrick Brand Rig Shakers – Brandt Brand D-watering Unit Air pumps on location for immediate remediation process Layout of Close Loop System with bins, centrifuges and shakers attached.

Cuttings and associated liquids will be hauled to a State regulated third party disposal site (CRI or Controlled Recovery, Inc.). The disposal site permit is DFP = #R9166

2- (250 bbl) tanks to hold fluid 2-CRI bins with track system 2-500 bbl frac tanks with fresh water 2-500 bbl frac tanks for brine water

Operations:

Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance performed. Any leak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of any spill. Remediation process will start immediately.

Closure:

During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI equipment to DFP #R9166.

 F
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 O
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 N
 Siecl pits

 Staker
 shaker

 shaker
 shaker

 Roll-off container
 Roll-off container

This will be maintained by 24 hour solids control personnel that stay on location.

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